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Tropical Products Institute

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The market for fresh mangoes in selected Western European countries

Tropical Products Institute Report

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The market for fresh mangoes in selected Western European countries

CFTRI, Experiment Station
Gole Bungalow, Cubbindwara Road
Nagpur-1.

Jacqueline Stother

April 1971 **Tropical Products Institute** 56/62 Gray's Inn Road London WC1X 8LU

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Requests for further information should be addressed to:

The Director,
Tropical Products Institute,
56/62 Gray's Inn Road,
London WC1X 8LU

ACKNOWLEDGEMENTS

The Institute acknowledges with gratitude the assistance given by members of the fruit trade in the preparation of this report.

Contents

CFTRI, Experiment Station
Gole Bungalow, Chhindwara Road
Nagpur-1.

	page
SUMMARY AND CONCLUSIONS	3
INTRODUCTION	5
SUPPLYING COUNTRIES	5
IMPORTS INTO EUROPE	7
Seasonal distribution of imports	8
IMPORTS INTO INDIVIDUAL EUROPEAN COUNTRIES	8
France	8
United Kingdom	10
German Federal Republic	10
Italy	10
Netherlands	12
Belgium	12
Switzerland	12
QUALITY REQUIREMENTS, VARIETIES ETC.	13
HARVESTING AND PACKING	13
THE MARKET SITUATION IN INDIVIDUAL COUNTRIES	14
France	14
United Kingdom	15
Federal Republic of Germany	15
Italy	17
Netherlands	17
Belgium	17
Switzerland	17
TARIFFS ETC.	17
PHYTO-SANITARY REGULATIONS	18
PROSPECTS	18
REFERENCES	19
APPENDIX A: FIRMS TRADING IN MANGOES	21
APPENDIX B: TRADE STATISTICS	23

page

LIST OF TABLES

1 Estimated Imports of Mangoes into Selected Western European Countries 1966-69 7
2 United Kingdom: Monthly Average Prices of Mangoes at Covent Garden Market, London 16

APPENDIX B

3 Fresh Mangoes: Exports from India 23
4 Fresh Mangoes: Exports from Kenya 23
5 Fresh Mangoes: Exports from Israel 24
6 Fresh Mangoes: Imports into France 24
7 Mangoes, Guavas, Mangosteen etc: Imports into the United Kingdom 25
8 Mangoes, Guavas, Mangosteen etc: Imports into German Federal Republic 25
9 Mangoes, Guavas, Mangosteen etc: Imports into Italy 26

LIST OF FIGURES

i. Major Exporting Seasons of Principal Suppliers to European Markets 6
ii. France: Monthly Imports of Mangoes 1967-69 9
iii. United Kingdom: Monthly Imports of Mangoes, Guavas and Mangosteen etc; 1967-69 11

The market for fresh mangoes in selected Western European countries

This report is one of a series concerning European markets for various tropical fruits. The other reports in the series cover the markets in eight Western European countries—France, the United Kingdom, the German Federal Republic ('Germany'), Italy, the Netherlands, Belgium, Sweden and Switzerland. However, in this report Sweden has been omitted since fieldwork established that there is at present no market for mangoes in Sweden.

Quantities are expressed in pounds (lb) and long tons (equivalent to 2,240 pounds), while values are expressed in pounds sterling (£) and new pence (p) (100p = £1).

Summary and conclusions

1. The mango is the second-most important of the minor tropical fruits on European markets (measured by tonnage imported), the avocado being the most important.

2. Mangoes are highly perishable, and most exporting countries find it necessary to air-freight mangoes to Europe, however, trial sea-shipments have been made by South African exporters, and if the problems of wastage in sea-freighted fruit can be overcome, this development could have a marked impact upon the marketing of mangoes in Europe.

3. No one supplying country dominates the European market for mangoes, since most countries have only a short period of production of high quality mangoes, although Kenya is an exception to this rule. Suppliers include India, Kenya, Mali, Senegal, Congo (Brazzaville), Upper Volta, South Africa, various Caribbean countries, Egypt and Israel.

4. Of the countries surveyed only France shows imports of mangoes in a separate trade category, while the United Kingdom, Germany, and Italy include mangoes with minor tropical fruits such as guavas. Imports of mangoes and other minor tropical fruits have been estimated at approximately 750 tons valued at £234,000 in 1969 and imports of mangoes alone at approximately 650 tons in that year. Imports have shown a rising trend.

5. The major importing country is the United Kingdom, followed by France. These two countries together account for some 82 per cent of mangoes imported into the countries surveyed.

6. The seasonal distribution of imports of mangoes is governed by the production seasons of the main supplying countries. Imports into France are at their highest in the April to June period, while United Kingdom imports are at a high level from May to September.

7. Imports into the seven individual countries are discussed. The French market is supplied by the Franc-zone countries of West Africa and also by Kenya, South Africa and Egypt. The United Kingdom market is supplied principally by India and Kenya while minor suppliers include South Africa, Jamaica, Dominica, Pakistan, Egypt and Israel.

8. The quality requirements of European buyers are stringent. Most buyers prefer fruit which is pale yellow with a trace of green on arrival and ripens to a deep yellow with a reddish tinge. Mangoes between ½ and 1 lb in weight (225-450 gm) are generally preferred. No one mango variety dominates European markets.

9. Mangoes should be harvested when mature but still partly green. The fruit should be clipped from the tree and kept in the shade to avoid over-heating, but temperatures below 50° F (10°C) are liable to cause chilling damage. If latex from the cut stem spills onto the fruit, it should be carefully washed

off. Mangoes are usually packed in cartons of 10-12 lb (5 kg) net weight, which should be well ventilated.

10. The markets for mangoes in the seven individual countries are discussed. In France mangoes seem to be sold largely on their 'snob' appeal. The Indian, Pakistani, and West Indian immigrant populations in the United Kingdom contribute a sizeable proportion of demand in that country. A German importer thinks that prospects for mangoes on the German market are favourable.

11. The average cif value of imports in 1969 ranged from 13½p per lb in France to 22p per lb in Italy.

12. There are no quota restrictions on mangoes imported into European countries and tariffs are relatively low, ranging from 5 per cent ad valorem in the United Kingdom to 7·2 per cent ad valorem (to be reduced to 6 per cent ad valorem) in the EEC countries.

13. Only the Italian phyto-sanitary regulations are restrictive, in principle permitting imports from Mediterranean countries only, although other exporting countries may apply for a waiver of the regulations.

14. It is impossible to estimate future European imports of mangoes with any accuracy because of the lack of statistical data. In any case imports are still at a very low level and, even if they increased at 10 per cent per annum, imports of mangoes would only amount to some 1,100 tons by 1975. To produce an 'explosion' in demand would require a considerable outlay on promotion to teach Europeans about mangoes, and also a reduction in retail prices.

15. Future increases in imports are expected to be largest in the United Kingdom, France, and Germany. Demand in Italy is negligible at present.

16. European markets are at present relatively 'open', ie not dominated by one supplying country, thus prospects for potential exporters to enter the market are favourable, although a factor of consumer preference obtains in the United Kingdom immigrant market.

INTRODUCTION

It appears that mangoes are the second most important of the minor tropical fruits (after avocados) in terms of tonnage imported into Europe, but until very recently, significant quantities were imported only into the United Kingdom and France. The demand for high quality mangoes is limited, and confined in most countries to the metropolitan areas where the fruit is sold by luxury retailers or is utilized by the restaurant trade. However, in the United Kingdom the immigrant population probably accounts for a considerable proportion of the market.

Mangoes are highly perishable, and until recently almost all supplies were air-freighted to Europe, since sea-freighted mangoes usually showed a high percentage of wastage. However, in recent seasons trial shipments of mangoes sent by sea from the Republic of South Africa have shown some promise and since sea-freight shows a considerable saving per box compared with air-freight, this development could have a marked impact upon the marketing of mangoes in Europe.

SUPPLYING COUNTRIES

There are many suppliers of mangoes to European markets; this may of course be largely because trade in mangoes is relatively undeveloped, but an important consideration is the short period of peak production of high quality mangoes in any growing area.

Fig. (i) shows the export seasons for the more important suppliers of mangoes to European markets. It will be noticed that most countries can export mangoes for only three or four months of the year. The Indian season is rather longer, probably due to the size of the country, embracing several climatic zones. Kenya is an interesting exception to the general rule since she can in some years export small quantities of mangoes virtually all year round, although peaks of production occur in the months April to July and November to December and there is usually a break in supply during August and September.

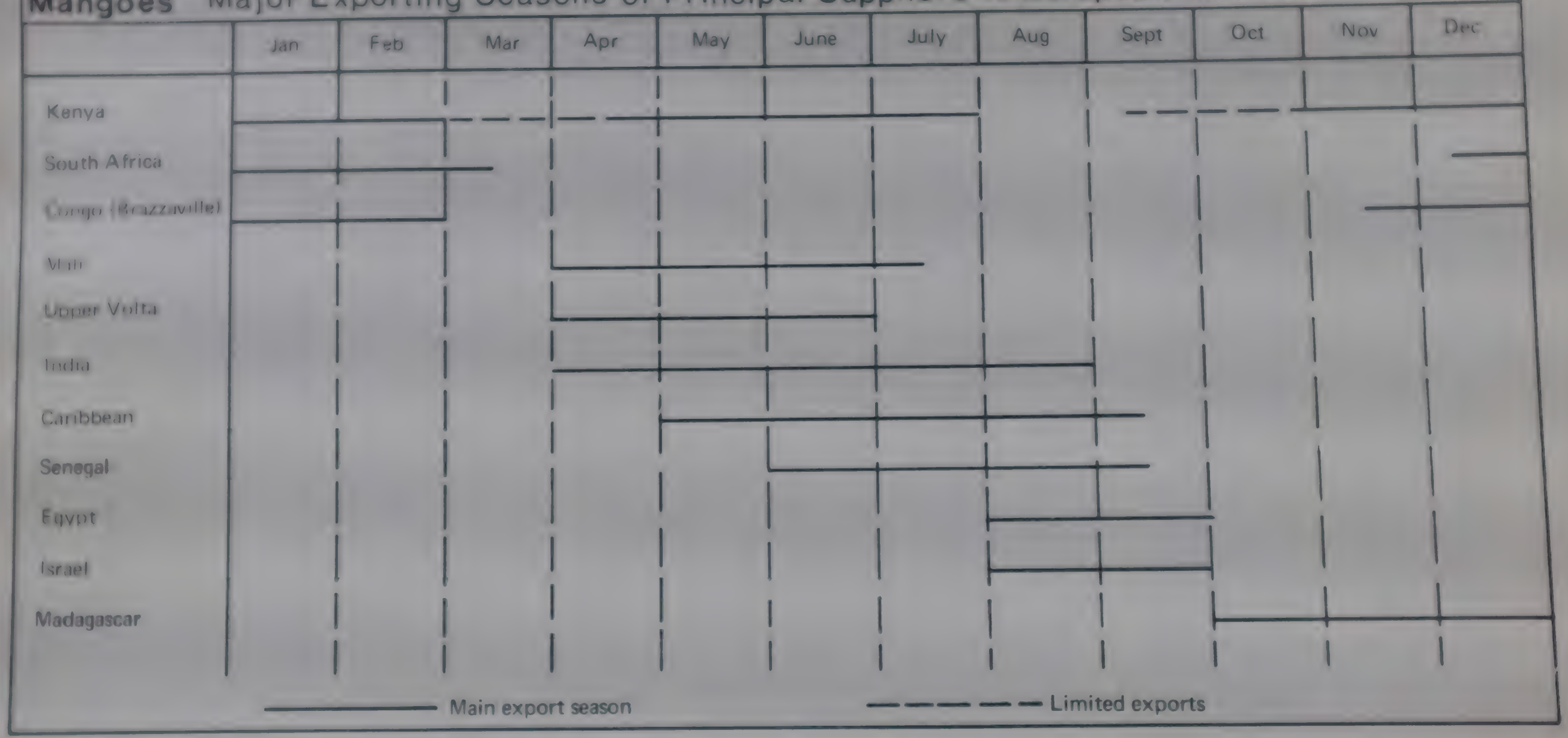
India is the world's largest producer of mangoes—production estimates range from 3·5 million tons in 1969[1] to 6·9 million tons in 1961-2[2]. However, of this enormous tonnage only 1,000 to 1,500 tons are exported and the quantities exported to Europe are small (see Table 3 in Appendix B). Indian Alphonse mangoes are considered by many connoisseurs to be the finest in the world, but the high cost of air-freight from India and the high fob prices asked by exporters undoubtedly limit the expansion of trade with Europe. At present the United Kingdom is virtually the sole European market for Indian mangoes, and exports to the United Kingdom have risen from about 46 tons in the period 1963/4 to 1965/6 to 188 tons in the year 1969/70 (the decline in exports in 1966/7 was due to drought conditions). There is of course a 'captive' market for Indian mangoes in the United Kingdom—immigrants of Indian origin (estimated to number 180,400 in 1966[3]) and also small numbers of English people who have lived in India.

Until 1969 *Kenya* was the main source of supply of air-freighted mangoes to the United Kingdom. In recent seasons Kenya has exported mangoes to most countries in Western Europe, notably to France and Germany. Exports have shown a rising trend by value (unfortunately the Kenyan Trade Returns do not show the tonnage of mangoes exported), although with year to year fluctuations. The values of Kenyan exports in recent years are shown in Table 4 of the Appendix. Kenyan mangoes, grown in the Coast Province, have established a reputation for good quality and regularity of supply. In addition to ripe mangoes, Kenya also exports small quantities of green mangoes (about 10 tons per annum) to the United Kingdom which are bought by Asian housewives for chutney-making.

Production of mangoes in French-speaking Africa is estimated at about 70,000 tons,[4] *Mali* being the most important producer with 30,000 tons[1]. Mali is

Figure (i)

Mangoes Major Exporting Seasons of Principal Suppliers to European Markets



the major supplier of mangoes to the French market, while *Senegal, Congo* (Brazzaville), *Upper Volta* and *Madagascar* are also substantial suppliers to this market, although they are not of any importance in other European markets, with the possible exception of Belgium.

Egypt, though a major producer of mangoes (producing approximately 90,000 tons per annum[1]) exports only very small quantities to Europe at present (less than 50 tons per annum) although exports are increasing.

Israel, on the other hand, is a very minor producer of mangoes, and has encouraged the production of this fruit for export in recent years. Exports amounted to as much as 52 tons in 1967, but have declined since then (see Table 5 of the Appendix).

South African production of mangoes amounted to over 11,000 tons in 1968[5] – twice the size of the 1964 crop[6] and planting has expanded rapidly since 1968. Unfortunately, there are no published data of exports of mangoes from South Africa; however it is understood that 50 tons were air-freighted to Europe in 1967 and sea-shipments were made in 1967 and 1968.

The *Caribbean* area, principally Jamaica and Dominica, is a minor supplier of mangoes to the United Kingdom market, largely for the immigrant population. Jamaica production is said to be at the 5,000 ton level[1], but exports amount to less than 50 tons per annum.

IMPORTS INTO EUROPE

It is difficult to estimate very precisely the quantities of mangoes imported into European countries since only France shows this fruit separately in the Trade Returns. However, the category 'Mangoes, mangosteens and guavas etc' shown by Italy (from 1966) Germany (from 1967) and the United Kingdom (from 1969) is thought to be largely composed of mangoes. For the other markets under review and the United Kingdom to 1968, estimates of imports have been made, based on the import category 'Mangoes, avocados, guavas and mangosteens etc'.

Table 1
Estimated imports of mangoes into selected Western European countries 1966–1969

		1966	1967	1968	1969(a)
United Kingdom	Tons	(170)*	(440)*	(350)*	373*
	£'000	(60)*	(125)*	(120)*	143*
France	Tons	164	169	216	235
	£'000	45	48	72	70
Germany	Tons	(10)*	15*	38*	46*
	£'000	...	5*	13*	18*
Italy	Tons	2*	4*	6*	5*
	£'000	1*	1*	2*	3*
Netherlands	Tons	(10)	(10)	(25)	(30)
	£'000	...	...	...	...
Belgium	Tons	(5)	(10)	(10)	(15)
	£'000	...	...	...	...
Switzerland	Tons	...	(30)	(40)	(40)
	£'000	...	...	...	...
TOTALS	Tons	(361)*	(678)*	(685)*	(744)*
	£'000	(106)*	(179)*	(207)*	(234)*

... Information not available ( ) TPI estimate * Including other tropical fruit

Sources: Derived from Officially Published Trade Returns and trade information

Estimated imports of mangoes into European countries for the years 1966 to 1969 are shown in Table 1. It must be emphasized that the estimates for the United Kingdom, Germany, and Italy and thus the totals include imports of tropical fruit other than mangoes (excluding avocados)—possibly between 70 and 100 tons. Nevertheless, the Table shows that imports of mangoes into European countries have been increasing and (taking account of other fruits imported) probably amounted to approximately 650 tons in 1969, valued at approximately £200,000.

The major importer of mangoes is undoubtedly the United Kingdom although the precise quantities imported are not known. France is second in importance and these two countries together accounted for some 82 per cent of European imports in 1968 and 1969 compared with approximately 90 per cent in 1966 and 1967. Although Germany imports relatively small quantities, her imports of minor tropical fruits increased by 200 per cent between 1967 and 1969.

Seasonal distribution of imports

The seasonal distribution of imports of mangoes is governed by the production seasons of the main supplying countries, which have been discussed above.

The only data available concerning the seasonal distribution of imports are the quarterly and monthly figures for France (see fig. (ii)) which show a peak in the April to June period and a minor peak in November/December. However, estimated United Kingdom imports of mangoes (including minor tropical fruits) on a monthly basis show a higher level of imports during the months May to September than the rest of the year, with the peak occurring in June. This is shown in fig. (iii). Although monthly import data for mangoes and minor tropical fruits are available for Germany and Italy, imports into these countries are very limited and tend to be rather erratic—they show no regular seasonal distribution.

IMPORTS INTO INDIVIDUAL EUROPEAN COUNTRIES

France

French imports of mangoes rose from 164·4 tons valued at £45,000 in 1966 (the first year in which mangoes appeared as a separate trade category) to 235·2 tons valued at £70,100 in 1969, an increase in tonnage of 43 per cent in three years (see Table 6 in the Appendix).

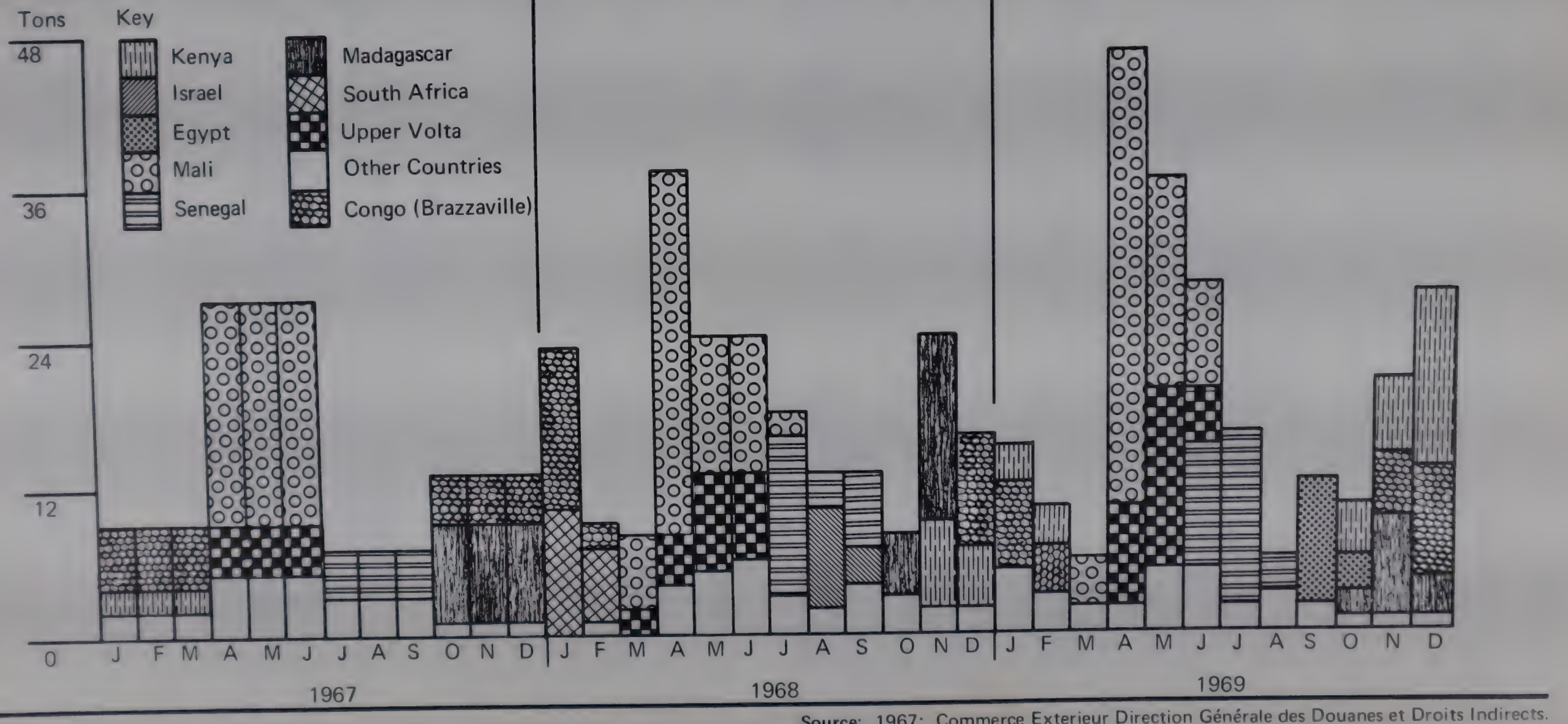
Apart from 1966 when Guinea was the major supplier, Mali has been the most important supplier of mangoes to this market, accounting for 28 per cent of imports in 1969 (compared with 33 per cent in 1967). Other West African countries are also substantial suppliers—in 1969 Senegal supplied 12 per cent and Congo and Upper Volta both supplied 11 per cent of the total. Madagascar is another minor supplier, whose market share has fallen from 16 per cent in 1967 to 6 per cent in 1969.

An interesting development has been the emergence of Kenya as an important supplier to the French market—the second largest supplier in 1969, accounting for 14 per cent of imports, in spite of her tariff disadvantage vis-a vis the Franc Zone African countries. South Africa was also a minor supplier in 1968, while Egypt emerged as a supplier in 1969.

The seasonal distribution of imports is shown in fig. (ii). Unfortunately, only quarterly data are available for 1967, which obscures the month to month fluctuations. However in 1968 and 1969 imports were at their peak in April, coinciding with the peak of Mali's export season. There was a minor peak in November/December when supplies were available from Kenya, Madagascar and Congo. Imports were at their lowest in March. It should be noted that the strikes of May 1968 caused the import figures for that month to be combined with those for June, thus the amount shown in fig. (ii) is an average for these two months.

Figure (ii)

Mangoes Monthly imports into France 1967-69 (quarterly average for 1967)



Source: 1967: Commerce Exterieur Direction Générale des Douanes et Droits Indirects.
1968 & 1969: Institute Français de Recherches Fruitiéres Outre-Mer.

United Kingdom

As has been mentioned above, there are no separate statistics of imports of mangoes into the United Kingdom, but estimates of imports of mangoes and minor tropical fruits (excluding avocados as far as possible) have been prepared from the trade category 'Avocados, mangoes, guavas, mangosteen etc' for the years 1966 to 1968. These estimates suggest that imports of mangoes and other fruits reached a peak of 440 tons in 1967, fell to 350 tons in 1968 and rose again to 373 tons valued at £142,300 in 1969 (see Table 7 in the Appendix).

Although it is clear that mangoes comprise the bulk of the trade category 'Mangoes, guavas, mangosteen etc', it is difficult to assess the precise quantities imported. Imports from India are virtually all mangoes, judging from the Indian export statistics and imports from Egypt and Pakistan are probably also entirely of mangoes. However imports of tropical fruit from many other countries, notably Kenya, South Africa, Israel and Jamaica, include guavas, passionfruit, paw-paws etc.

The seasonal distribution of imports is shown in fig. (iii). The peak month for imports is June, when supplies are available from India, Kenya and Jamaica. Imports are at their lowest in the early spring months (March/early April) and in December, when Kenya is virtually the sole supplier.

India and Kenya are the major suppliers of mangoes to the United Kingdom market, together accounting for 69 per cent of imports of mangoes and minor tropical fruits in 1969. India has increased her share of the market from 16 per cent in 1966 to 38 per cent in 1969. Kenya supplied 35 per cent of the market in 1966 and 1967, but her share fell to 25 per cent in 1968 before recovering to 30 per cent in 1969. Imports from South Africa, Israel, Jamaica, and Dominica have fluctuated considerably from year to year. It is interesting to note that supplies from Egypt were received in 1968 and 1969.

German Federal Republic

German imports of mangoes and minor tropical fruits are very limited, although they increased from 15 tons valued at £4,800 in 1967, to 46 tons valued at £18,000 in 1969 (see Table 8 in Appendix B).

Kenya is the major supplier to this market, accounting for 74 per cent of total imports in 1969. Other suppliers were not shown in the 1967 and 1969 Trade Returns, but in 1968 Israel and South Africa also supplied the German market.

Once again it is difficult to estimate imports of mangoes alone, since Kenya, Israel and South Africa export tropical fruit other than mangoes.

The seasonal distribution of imports over the period 1967 to 1969 shows no regular pattern and little detail of supplying countries. In 1967 imports were highest in June and July and lowest during the months October to December. In 1968 imports were high in September, November, and December and low in July; imports were received from South Africa in the early part of the year. In 1969 imports fell from a high level in January to a low level in April and then increased to a new peak at the end of the year, when Kenya was the main supplier.

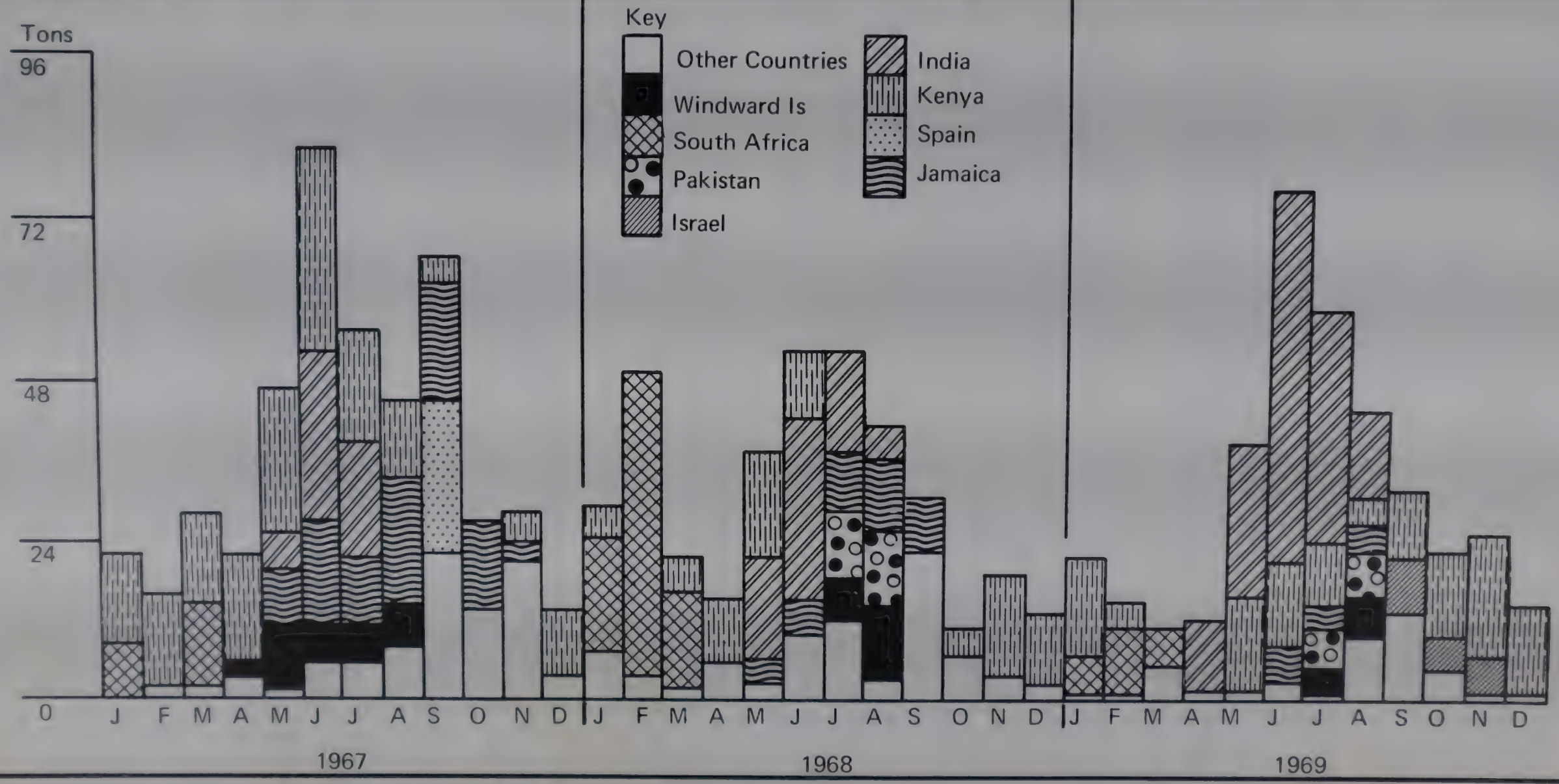
Italy

Imports of mangoes and minor tropical fruits into Italy are negligible, amounting to less than 6 tons, valued at £2,300 in 1968, according to the provisional trade figures for 1969 the tonnage imported in that year declined slightly, although the value of imports rose to £2,700 (see Table 9 in the Appendix).

It is believed that a considerable proportion of these imports are of mangoes—

Figure (iii)

Mangoes, Guavas, etc Monthly imports into United Kingdom. (estimated imports for 1967-1968



Source: Fruit Intelligence Commonwealth Secretariat.

certainly imports from India and Egypt and quite possibly also imports from Israel and South Africa (the limited information available from the monthly Trade Returns supports this hypothesis).

The seasonal distribution of imports in 1968 and 1969 showed a rather sporadic pattern which corresponds to the main mango export seasons of the supplying countries: ie imports are received from January to March (South African season), May to July (Indian season), August and September (Israeli and Egyptian seasons) and very small quantities also in November and December. Imports into Italy are governed to some extent by the strict phyto-sanitary regulations (see page 18).

Netherlands

Unfortunately, imports of mangoes into the Netherlands are included in a composite trade category which also includes avocados. Although there is reason to believe that avocados are of less importance in total imports of tropical fruits in this country than in most other European markets, it is difficult to determine the importance of mangoes on this market.

According to estimates prepared by the Produktschap voor Groenten en Fruit, imports of mangoes amounted to 10 tons in 1967 and to 18 tons during the first nine months of 1968. In 1967 the main suppliers were the Congo, Kenya, South Africa, Israel, and Surinam, and in 1968 supplies were also received from Egypt and the Ivory Coast. Total imports in 1968 probably amounted to some 25 tons. Imports of mangoes in 1969 probably increased slightly and may have reached 30 tons, Kenya being the major supplier, followed by Egypt.

Unfortunately, it is not possible to estimate monthly imports of mangoes into the Netherlands.

Belgium

Again, imports of mangoes are included in a composite trade category which includes avocados – in this case thought to account for a major proportion of imports. Imports of mangoes probably amounted to about 10 tons in 1967 and 1968 and rose to about 15 tons in 1969. The major supplying countries are said to be Kenya, Mali, South Africa and Israel.

The chief seasons for imports seem to be the early summer, in August/September, and also just before Christmas, according to information supplied by the trade.

Switzerland

The Swiss Trade Returns include imports of mangoes in a trade category which covers coconuts and prior to 1968, pineapples, besides tropical fruits such as avocados, mangoes etc. However, Cadillat estimated Swiss imports of mangoes at about 30 tons in 1967", and discussions with the trade suggest that imports may have increased by a further 10 tons in 1968. The chief sources of supply are India, Kenya, South Africa and Israel.

QUALITY REQUIREMENTS, VARIETIES ETC.

Only good quality dessert mangoes are required by European buyers. The fruit should be free from fibrous tissue, and have a good flavour when fully matured, free from all terpene off-flavours. Mangoes should arrive on European markets fully mature, but in a firm condition, so that they will ripen satisfactorily, yet have as long a shelf-life as possible. Most buyers have a preference for fruit which is pale yellow with a trace of green when it arrives, and ripens to a deep yellow with a reddish-pink tinge.

Buyers in European markets require mangoes to arrive with a clean, bright appearance, free from all types of skin disfiguration, diseased portions, rots, bruising etc; the stone should be of a reasonable size in proportion to the fruit tissue.

It is absolutely essential for exporters to size grade the fruit accurately, since mangoes are sold by the piece in retail outlets and the trade shows a marked preference for cartons containing fruit of uniform size. Mangoes of between ½ lb and 1 lb weight (225 gm to 450 gm) are generally preferred.

Many varieties of mangoes are sold on European markets. The Indian Bombay and Alphonse mangoes are generally considered to have a better flavour than other varieties and these dessert fruits can make premium prices on the United Kingdom market, being especially popular with the Indian immigrant population. The Boribo and Ngowe are the principal varieties received from Kenya, and both are excellent dessert fruits, although the latter seems to be preferred by some consumers. In addition Kenya also sends the Dodo and Apple varieties from time to time, the latter having a rather more acid taste than other East African varieties of mango. South African exporters have successfully marketed the small Peach mango and more recently the Kent variety, which has given promising results when shipped by sea. Julie is the main variety from the West Indies, and the small Jamaican Black Mango has been sold in the United Kingdom, mainly to the immigrant sector of the trade. Israel esports several varieties of mangoes to Europe, the chief being Maja and Haden.

HARVESTING AND PACKING

Careful handling during picking, packing and shipment is essential if the fruit is to arrive on European markets in good condition.

A major problem in the picking of mangoes is how to determine the correct stage of ripeness at which the fruit must be harvested. A good indication of the maturity of mangoes can usually be obtained from the colour of the flesh which changes from white to yellow at maturity, starting around the seed[5]. This test of maturity is obviously a destructive one, involving the cutting open of a sample number of fruits.

Fruit should be clipped from the tree, leaving a small piece of stalk on the fruit. Once picked, mangoes should be kept in the shade to avoid over-heating. The mango is very susceptible to decay after picking, and careful handling at all stages can never be over-emphasized. In particular, strict attention must be given to the removal of all traces of the latex which is exuded from the cut surface of the fruit stem, since even minute traces can cause damage to the skin, which shows after two or three days by browning of the lenticils and the development of rots around the damaged spots. Ideally mangoes should not be washed or wiped since this may spread disease and remove the natural waxes in the peel of the fruit. However, where washing is necessary to remove latex, this must be done thoroughly but very carefully, since any remaining trace of latex accelerates ripening and causes localized softening. Mangoes for export by air-freight are usually packed in fibreboard cartons of 10-12 lb (5 kg) net weight, the mangoes being individually wrapped in tissue paper and packed in wood-wool or synthetic fibre packing. It is important that sufficient ventilation

holes should be provided in the cartons to prevent the fruit over-heating. For export to European markets pre-cooling is also recommended, although it is important that mangoes should not be cooled to temperatures below 50° F (10° C) since they are liable to suffer chilling injury.

To present an attractive pack, cartons should contain fruit of one cultivar only and of even size and ripeness. Counts of 12, 15, 20 and occasionally 24 fruits to a carton are most popular on European markets.

THE MARKET SITUATION IN INDIVIDUAL COUNTRIES

France

a. *Distribution*

Mangoes are still of very minor importance on the French market and are handled by very few importers and wholesalers, especially in the provinces. Almost all mangoes imported into France are handled by importers in Paris and then on-shipped to wholesalers in the provinces, and also sold direct to provincial chain stores. In 1966 it was calculated that the Paris region accounted for some 90 to 95 per cent of French consumption of minor tropical fruits, excluding avocados[6].

Since there is no large immigrant population in France from areas where mangoes are grown, it must be assumed that mangoes are sold largely to the native French population on their 'snob' appeal. Retail outlets are confined to luxury retailers and supermarkets and department stores having an exotic fruits department; even in Paris mangoes are not usually stocked by small independent retailers.

b. *Prices*

The average cif values for the years 1966 to 1969 as calculated from the Trade Returns are shown below:

	1966	1967	1968	1969
	New pence per lb			
All sources	12p	13p	15p	13½p
Congo (Brazzaville)	12p	10½p	12p	12½p
Mali	14p	14½p	16½p	12½p
Madagascar	16p	14p	18p	15½p
Upper Volta	10½p	—	11½p	9½p
Senegal	—	—	11½p	12p
Kenya	—	—	17p	17p
South Africa	—	—	18p	—
Egypt	—	—	—	17p

It should be noted that these values were affected by the sterling devaluation in late 1967 and the franc devaluation in August 1969. When these factors are taken into account it is evident that there was no upward trend in prices in terms of francs over the period 1967 to 1969.

The wide range in prices for mangoes from different sources can probably be accounted for by differences in quality.

Wholesale prices in Paris generally ranged from 19p to 23p per lb in 1968 and from 21p to 25p per lb in 1969. In the provinces wholesale prices tend to be a little higher because of transport costs.

Mangoes are sold both by weight and by the piece at retail level. In December 1968 prices in supermarkets in Lyons and Marseilles ranged from 30p to 48p per lb, while a Paris department store was selling small mangoes at 17½p each.

United Kingdom

a. *Distribution*

The marketing of mangoes in the United Kingdom varies from the pattern in other European countries because of the relatively large population of immigrants from the Indian sub-continent and the West Indies, where mangoes are widely grown. There are in effect two markets for mangoes in the United Kingdom: a very limited luxury market (chiefly high-class fruiterers and stores specializing in supplying exotic products), which is supplied through the wholesale markets, notably Covent Garden; and a much wider market among the immigrant population which is generally supplied direct from the exporting countries to a few large and many small dealers in immigrant foodstuffs, thus by-passing the wholesale markets. It is difficult to obtain information regarding the latter trade, particularly as regards prices.

b. *Prices*

The luxury trade is supplied chiefly by mangoes from Kenya and also by seasonal consignments from South Africa and Israel. Table 2 gives details of monthly average wholesale prices paid for mangoes at Covent Garden during the period January 1966 to September 1970. It should be noted that prices are not always quoted for this fruit since consignments are often small and received at spasmodic intervals. Moreover the prices quoted in Table 2 are average prices and during any month the actual prices realized can show considerable fluctuation according to the supply and demand position and the quality of individual consignments. Normally, however, the trade expect good quality Kenyan mangoes weighing between 12 oz and 14 oz (340 gm to 400 gm) to sell for between 15p to 20p each at wholesale, while smaller fruit from the Republic of South Africa and India will usually fetch prices between 11p and 15p each. However, in view of the very limited demand for mangoes and their highy perishable nature, the market is extremely sensitive and a few cartons in excess of trade requirements can cause prices to collapse, particularly if this situation coincides with a period of hot weather, which reduces the shelf-life of the fruit.

It is difficult to discern any seasonal pattern of prices from Table 2 apart from a decline in the prices of Kenyan mangoes in May and June when Indian mangoes are available. The relatively low prices for Kenyan mangoes in 1967 probably resulted from the unusually large supplies on the market in that year and the high prices in some months of 1968 from the fact that supplies in that year were rather limited.

It is interesting to note that imports of Indian mangoes have increased strongly in recent years, in spite of rising import prices resulting from Indian exporters' insistence on selling at fixed f.o.b. prices (cif values of 12½p per lb in 1967, 16½p in 1968 and 17p in 1969). It is the opinion of Indian importers in the United Kingdom that the quality of the fruit exported has improved and that sales of fresh mangoes are adversely affecting sales of canned mangoes. Incidentally, the proportion of Indian mangoes sold on the wholesale markets is very small compared with the quantities sold through other channels, so the prices for Indian mangoes shown in Table 2 do not necessarily reflect wholesale prices for these mangoes in general.

Federal Republic of Germany

The market for mangoes is considerably more limited in Germany than in France or the United Kingdom. However, one importer thinks that the prospects for this fruit are favourable and he intends to import regularly, eg from Kenya, so that the market may expand rather more quickly than hitherto. At present almost all sales are made through supermarkets.

Wholesale prices are said to average around 17½p to 20p per lb.

Table 2

United Kingdom: Monthly Average Wholesale Prices at Covent Garden Market, London

Pounds (£) and pence

		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual Range Low	Annual Range High
Canada						0·16(a)	0·16	..	..	..	0·22(a)	0·18	0·16	0·16	0·25
per case	1966	0·19(a)	..	..	..	0·13	0·14	0·14	0·14	..	..	0·15	0·15	0·13	0·17
per case	1967	0·17	0·16	0·15	0·15	2·13	2·25	..	..	..	2·12	1·87	1·94	1·67	2·25
per carton (10 12 lb)	1968	2·06	1·62(a)	1·96	2·12	2·05	1·53	2·01	1·87	1·96	2·05	2·06	2·02	1·53	2·50
per carton (10 12 lb)	1969	1·94	2·02	2·08	2·50(a)	1·87	1·69	...	...	..					
per carton (10/12 lb)	1970	1·62	1·77	1·86	2·19										
India						0·12(a)	...	0·10(a)	...	...	...	...	...	0·10	0·12
per piece	1966	...	...	...	...	...	...	...	...	...	...	...	...	0·14	
per piece	1967	...	...	...	...	...	0·14(a)	...	...	...	...	...	...	0·11	0·12
per piece	1968	...	...	...	...	0·12	0·11	0·12	...	...	...	...	...		
per piece	1969	...	...	...	0·12	0·11	0·11	0·11	...	...					
per piece	1970	...	...	...											
Israel									2·25(a)	1·69	1·90	...	...	1·69	2·25
per carton (5 kg)	1967	...	...	...	...	...	...	...	1·80(a)	1·62(a)	...	...	...	1·62	1·80
per carton (5 kg)	1968	...	...	...	...	...	...	...	2·00(a)	2·00(a)	...	...	...	2·00	
per carton (5 kg)	1969	...	...	...	...	...	...	...	...						
per carton (5 kg)	1970	...	...	...	...	...	...	...							
South Africa									...	...	...	...	...	1·77	2·12
per carton (5½ kg)	1968	2·00	1·77	2·12(a)	...	...	...	...	...	...	...	...	...	1·92	
per carton (5½ kg)	1969	1·92	1·92	...	...	...	...	...	...	...				1·95	2·41
per carton (5½ kg)	1970	...	1·95	2·41	...	...	...	...	...	...					

.. Not quoted (a) Quoted one week only **Source:** *Fruit Trades Journal*

Italy

The market for mangoes in Italy is negligible, and obviously outlets are very limited.

The average cif import values for minor tropical fruits (thought to be largely mangoes) calculated from the Trade Returns have been as follows:

	1966	1967	1968	1969
		New pence per lb		
All sources	16p	10½p	17½p	22p
India	11½p	9p	13½p	–
Egypt	20p	–	22½p	–
Israel	–	13½p	17½p	–

It is interesting to note that the wide range of import values on this very limited market.

Netherlands

It seems likely that a considerable proportion of the mangoes imported into the Netherlands are sold to people of Indonesian or Caribbean origin, who are said to be prepared to pay relatively high prices for tropical and sub-tropical fruits. The chief retail outlets are luxury retailers and shops specializing in the sale of Indonesian foodstuffs. Members of the wholesale trade are of the opinion that trade might increase at a faster rate if they could obtain a guaranteed supply of mangoes throughout the year.

Wholesale prices ranged from £1·40 to £1·75 per carton (approximately 12½p to 16p per lb) in 1968.

Belgium

Again the market is very limited; luxury retailers are probably the most important outlet, although some department stores also sell mangoes.

Wholesale prices for Kenyan mangoes average about 22½p per lb. In early December 1968 mangoes were retailing at 37½p per lb in a Brussels' department store, and Kenyan mangoes were marked at 56p each and 60½p per lb in luxury retail outlets.

Switzerland

Mangoes are possibly more widely sold in Switzerland than in other continental European countries; it is thought that the tourist trade may be responsible. Wholesale prices average between 17½p and 21½p per lb.

TARIFFS ETC

There are no quantitative restrictions on imports of mangoes into the countries surveyed.

Import tariffs on mangoes are as follows:

Country	General Tariff	Exceptions
EEC	7·2% ad valorem (to be reduced to 6% by 1.1.72)	Fruit from Associated Territories—free
United Kingdom	5% ad valorem	Fruit from Commonwealth countries and South Africa—free
Switzerland	15·00 fr/ 100 kg gross	Fruit from GATT members —7·50 fr/100 kg gross

PHYTO-SANITARY REGULATIONS

The only phyto-sanitary regulations which specifically refer to mangoes are those of Italy which in principle permit imports only from countries bordering the Mediterranean. However, it is open to prospective exporters to apply for a waiver of the regulations either for a part, or the whole of a year.

Mangoes imported into any European country are liable to be inspected by the officials of the Plant Health authority, and a charge is sometimes made for inspection.

PROSPECTS

The lack of statistical data for imports of mangoes into European countries makes it very difficult to estimate the present level of demand and obviously precludes any statistical projection of future demand.

It must be remembered that European imports of mangoes are still at a very low level, amounting to approximately 650 tons in 1969 (compared with over 4,500 tons of avocados and 27,500 tons of pineapples in that year). Thus quite substantial percentage increases in demand represent relatively small increases in absolute terms. It should also be remembered that there are two distinct outlets for mangoes on the European markets and different motivations for buying mangoes. The immigrant populations of the United Kingdom and the Netherlands (and some European-born people who have lived in tropical countries) know and appreciate mangoes, and presumably buy this fruit as often as they can afford to do so. There is also a small sector of the indigenous populations who buy mangoes chiefly for their 'snob' appeal. There has been no promotion for mangoes on the scale of that mounted for avocados in the United Kingdom and France.

It is obviously questionable whether the 'immigrant' demand will continue to increase. At present the 'immigrant' demand is of considerable importance in the United Kingdom and the Netherlands (probably accounting for between 40 per cent and 50 per cent of total demand in the former) and has apparently increased in recent years, however the high price of mangoes at retail level (usually 15p or more per piece) obviously limits demand in this sector since many immigrants have relatively low incomes. Furthermore, unless the European-born children of Indian, West Indian and Indonesian parents are introduced to mangoes, the 'immigrant' demand will obviously decline over time.

As far as sales to Europeans are concerned, future increases in demand would seem to depend both on making this fruit better known, and on a reduction in prices. It has been suggested that the anticipated increase in South African production of mangoes and successful results of further research into the problems of sea-freighting, may permit South African promotion of relatively cheap mangoes in European markets on a large scale in a few years' time.

These considerations lead to the conclusion that although European imports of mangoes might (perhaps) increase at a rate of 10 per cent per annum for the next five years or so, to reach 1,100 tons in 1975, an 'explosion' in demand (as occurred with avocados) will depend upon the development of sea freighting, the price reductions this will permit, and widespread promotion of mangoes to educate the European consumer.

It should be noted, however, that mangoes compete with indigenous European fruits during the summer months, to a much greater extent than do avocados (which may be used as fruit or vegetable). Mangoes are considered by many Europeans to be rather similar to peaches, both in appearance and in their use as a dessert fruit. France and Italy are important producers and exporters of peaches, and during the summer months of June, July and August peaches are widely available at relatively low prices, even in the United Kingdom imported peaches sell at 2½p to 5p each

The prospects for potential exporters to enter this market appear to be quite good since no one supplying country has yet succeeded in dominating European markets and the short season of production would prevent this from happening to any marked degree. The relative 'openness' of these markets at present is illustrated by the emergence of Kenya as an important supplier to the French market. Discriminatory tariffs are fairly low (5 per cent to 7·2 per cent ad valorem). However, certain sectors of the market appear to be limited to certain suppliers—for example Indian immigrants will buy Indian mangoes in preference, or to the total exclusion of, mangoes from other sources, similarly Jamaicans prefer mangoes from Jamaica or Dominica. This factor of consumer preference is chiefly of importance on the United Kingdom market, but it must be borne in mind by potential exporters to that market.

In absolute terms future increases in imports of mangoes are expected to be largest in the United Kingdom, France and Germany (in the latter case one importer is actively promoting the sales of mangoes). Demand in Italy is negligible at present and seems unlikely to increase rapidly.

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Appendices

APPENDIX A

FIRMS TRADING IN MANGOES

Note: The following list gives the names of some of the firms which are known to the Tropical Products Institute to be trading in this commodity, but the list should not be regarded as exhaustive. Inclusion in the list does not imply that TPI has any knowledge of the financial standing of the firms.

France:

Ets E. Azoulay et Cie
Marché des Fruits et Légumes
Min de Paris-Rungis
(94) Rungis

Charles F. Canale SA
10/12 rue du Colonel Driant
(75) Paris 1

Ets Omer-Décugis et Fils
45c rue de Toulouse
MIN de Paris-Rungis
(94) Rungis

Société Pomona
Marché des Fruits et Légumes
MIN de Paris-Rungis
(94) Rungis

United Kingdom:

Broome and Greene (London) Ltd
James Street
Covent Garden
London WC2

Dein Bros (Food Importers) Ltd
Terminal House
Olaf Street
London W11

Enco Products Ltd
71 Fortress Road
London NW5

Geo Monro (Produce) Ltd
40 King Street
Covent Garden
London WC2

Grewal, Basi & Co
15/17 Artillery Lane
London E1

T. J. Poupart Ltd
107-115 Long Acre
Covent Garden
London WC2

United Kingdom *(continued)*	J. O. Sims Ltd Winchester Walk Borough Market London SE1
	Dan Wuille & Co. Ltd. 100-104 Long Acre Covent Garden London WC2
German Federal Republic:	Harder, Meiser and Co 29 Breitenweg 28 Bremen 1
	T. Port Kontorhaus Grossmarket 2 Hamburg
Italy:	Copam 20c Via Lazio Rome
Netherlands:	Algemeene Vruchten Import Maatschappij NV 53 Walenburgerweg Rotterdam 4
	Ceka NV 437 Hoofdweg Amsterdam
	Jan de Geus NV Central Market Hal 9-13 Amsterdam
	Albert Heijn Zaandam 26 Westzijde Amsterdam
Belgium:	Agrofruit (Belgium) 167 Italielei Antwerp
	Lecocq 19 Boulevard d'Ypres Brussels
	Unifruit 27 Boulevard d'Ypres Brussels
Switzerland:	J. Berri 67 Sihlquai 8005 Zurich
	G. Helfer 74 Grand Rue 1110 Morges
	L. G. Pelli 55 Konradstrasse Zurich 5
	Tremblay and Burgermeister SA 49 Route des Jeunes Geneva 26
	Sante Tribo 72 Konradstrasse 8031 Zurich

Table 3
Fresh mangoes

Exports from India

12 months beginning April 1st		1964/65	1965/66	1966/67*	1967/68	1968/69	1969/70
Totals	Tons	1,040	626	797	1,058	1,185	1,465
	£'000	95·8	63·2	68·6	90·9	136·1	164·3
of which to:							
United Kingdom	Tons	47	46	27	85	92	188
	£'000	6·5	5·7	3·2	9·7	12·8	26·0
Switzerland	Tons	7	7	1	6	1	1
	£'000	1·1	1·0	0·1	1·1	0·2	0·3
France	Tons	4	3	–	18	2	2
	£'000	0·6	0·5	–	2·8	0·6	0·2
Germany	Tons	8	6	1	4	1	2
	£'000	1·1	1·1	0·1	0·7	0·1	0·6
Belgium	Tons	2	2	–	1	1	–
	£'000	0·3	0·2	–	0·2	0·2	–
Italy	Tons	3	–	–	–	–	–
	£'000	0·4	0·1	–	–	–	–
Netherlands	Tons	–	–	–	–	–	–
	£'000	0·1	0·1	–	–	–	–
Other Countries	Tons	969	562	768	944	1,088	1,272
	£'000	85·7	54·5	65·2	76·4	122·2	137·2

– Nil or negligible * Devaluation occurred June 1966

Source: *Statistics of the Foreign Trade of India,* Department of Commercial Intelligence and Statistics

Table 4
Fresh mangoes

Exports from Kenya

		1964	1965	1966	1967	1968	1969
Totals	£	13,030	20,316	13,374	22,878	8,073	26,276
of which to:							
United Kingdom	£	2,031	5,307	5,434	15,649	1,351	6,916
Germany	£	16	212	890	914	352	4,919
Netherlands	£	24	203	266	376	938	2,255
France	£	–	462	140	635	1,857	7,283
Switzerland	£	–	–	230	292	976	2,387
Belgium	£	–	–	40	347	346	67
South Yemen (Aden)	£	9,772	11,509	5,860	4,108	702	784
Other Countries	£	1,187	2,623	514	557	1,551	1,665

– Nil or negligible

Source: *Trade Report,* East African Customs and Excise

Table 5
Fresh mangoes

Exports from Israel 1966–1969

Not separately shown before 1966		1966	1967	1968	1969
Totals	Tons	6	52	35	11
	£'000	1·0	8·1	12·5	4·2
of which to:					
France	Tons	5	24	12	–
	£'000	0·7	3·3	4·2	–
United Kingdom	Tons	1	23	10	5
	£'000	0·1	3·7	3·7	1·7
West Germany	Tons	–	–	7	–
	£'000	–	–	2·5	–
Italy	Tons	–	–	2	–
	£'000	–	–	0·4	–
Other Countries	Tons	–	5	4	6
	£'000	0·2	1·1	1·7	2·5

– Nil or negligible

Source: *Israel Foreign Trade*, Central Bureau of Statistics

Table 6
Fresh mangoes

Imports into France

Data not available before		1966	1967	1968	1969
Totals	Tons	164·4	169·3	216·5	235·2
	£'000	45·0	48·4	71·9	70·1
of which from:					
Congo Brazzaville	Tons	17·7	29·5	25·6	25·6
	£'000	4·7	7·1	7·0	7·1
Guinea Rep.	Tons	42·3	–	–	–
	£'000	9·0	–	–	–
Madagascar	Tons	15·8	27·6	20·7	13·8
	£'000	5·6	8·8	8·3	4·8
Mali	Tons	30·5	57·0	60·0	66·9
	£'000	9·7	18·7	21·9	18·6
Upper Volta	Tons	19·7	–	21·7	26·6
	£'000	4·8	–	5·5	5·7
Senegal	Tons	–	–	24·6	29·5
	£'000	–	–	6·3	7·9
South Africa	Tons	–	–	15·7	–
	£'000	–	–	6·4	–
Kenya	Tons	–	–	12·9	33·5
	£'000	–	–	4·9	12·6
[illegible]	Tons	–	–	–	14·8
	£'000	–	–	–	5·6
[illegible]	Tons	28·4	55·2	35·2	24·5
	£'000	11·2	13·8	11·6	7·8

– Nil or negligible

Source: *Commerce Extérieur* [illegible] Statistiques des Douanes et Droits Indirects

Table 7
Mangoes, guavas, mangosteen etc.
(1966 to 1968 estimated imports)
Imports into the United Kingdom

		1966(a)	1967(a)	1968(a)	1969
Totals	Tons	160	440	350	373
	£'000	(55)	(125)	(140)	142·9
of which from:					
India	Tons	25	53	75	141
	£'000	10	15	28	54·4
Kenya	Tons	56	156	87	116
	£'000	17	44	28	47·4
South Africa	Tons	21	13	64	22
	£'000	...	...	...	9·7
Israel	Tons	1	23	12	20
	£'000	...	...	...	8·2
Egypt	Tons	—	—	5	20
	£'000	—	—	2	6·1
Jamaica	Tons	23	87	39	17
	£'000	6	30	11	6·0
Pakistan	Tons	24	5	21	15
	£'000	7	2	9	6·4
Dominica	Tons	9	32	18	12
	£'000	2	3	2	1·2
Other Countries	Tons	1	71	29	10
	£'000	...	...	...	3·5

... Information not available — Nil or negligible (a) May include small quantities of avocados

Source: *The Trade of the United Kingdom,* H.M. Customs and Excise

Table 8
Mangoes, guavas, mangosteen etc.
Imports into German Federal Republic

		1967	1968	1969
Totals	Tons	15·2	38·5	45·9
	£'000	4·8	13·1	18·0
of which from:				
Kenya	Tons	5·3	13·4	33·9
	£'000	2·1	3·8	12·8
Israel	Tons	—	7·5	—
	£'000	—	3·0	—
South Africa	Tons	—	8·5	—
	£'000	—	3·0	—
Other Countries	Tons	9·9	9·1	12·0
	£'000	2·7	3·3	5·2

— Nil or negligible

Source: *Der Aussenhandel,* Statistisches Bundesamt

Table 9
Mangoes, guavas, mangosteen etc.

Imports into Italy

		1966	1967	1968	1969(a)
Totals	Tons	1·8	3·6	5·8	5·5
	£'000	0·6	0·8	2·3	2·7
of which from:					
India	Tons	0·8	2·4	1·4	...
	£'000	0·2	0·5	0·4	...
Egypt	Tons	1·0	–	0·2	...
	£'000	0·4	–	0·1	...
Israel	Tons	–	1·2	2·2	...
	£'000	–	0·3	0·8	...
South Africa	Tons	–	–	1·9	...
	£'000	–	–	0·9	...
Other Countries	Tons	–	–	0·1	5·5
	£'000	–	–	0·1	2·7

... Separate figures not available – Nil or negligible (a) From December summary

Source: *Commercio con L'Estero,* Instituto Centrale di Statistica